

REMARKS

This is in response to the Non-Final Office Action mailed on March 13, 2006 in which claims 1, 63-68, and 85-87 were pending in the Application and claims 69-84 were withdrawn from consideration. In the Action, claims 1, 63-68, and 85-87 were rejected. By this Response, claims 63 and 64 are cancelled and claims 1 and 65-67 are amended. All other claims remain unchanged in the Application.

Claims 63-65 and 67 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ratha et al., 1995, *Adaptive Flow Orientation Based Feature Extraction In Fingerprint Images* (hereinafter "Ratha"). Claims 63 and 64 have been cancelled rendering the rejection moot. Claim 65 has been amended to include the subject matter of claims 63 and 64 from which claim 65 previously depended. Applicants submit that claim 65, as amended, is neither taught nor suggested by the reference of record.

Claim 65 is directed toward a computer implemented method for evaluating image quality. The method includes obtaining a raw scanned image, selecting at least one image portion from the raw scanned image, and generating a collection of slope-oriented data that corresponds to the at least one image portion of the raw scanned image. The method further includes generating a slope representation based on at least a portion of the raw scanned image. In addition, the method includes utilizing the slope representation to determine "a quality characteristic of the raw scanned image and an additional classification based on a brightness level with at least a portion of the raw scanned image."

The Office Action states that the Ratha publication discloses utilizing the slope representation to determine an additional classification based on a brightness level and cites Ratha, page 16, paragraph 2 for the proposition that Ratha provides a quality characteristic based on brightness level. However, Ratha discloses only one image quality classification of which contrast is a consideration. Ratha does not disclose an additional classification based on a brightness level that is in addition to a quality characteristic. By contrast, claim 65 recites providing two distinct classifications. Thus, Ratha neither teaches nor suggests all of the recited features of claim 65. For at least these reasons, Applicants submit that claim 65, and its dependent claims 1 and 66-68, are allowable over the references cited. Withdrawal of the rejection is requested.

Claims 85-87 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ratha in view of U.S. Pat. No. 5,420,937 of Davis and further in view of U.S. Pat. No. 5,239,590 of Yamamoto. Claim 85 is directed toward a computer-implemented method for quantifying a quality of an image. The method includes steps of retaining a raw scan of an image and pre-processing the raw scan to obtain a monochrome image. In addition, the method includes the steps of generating a collection of slope oriented information based on the monochrome image dividing the monochrome image into an array of pixel grids and executing a count of pixels within at least one pixel grid of the array of pixel grids. The method further includes the steps of comparing the count of the pixels in the one pixel grid to a reference in determining a quantified quality classification as a relation of the count of the pixels to the reference. The Office Action admits that both Ratha and Davis do not expressly teach

the step of "executing a count of pixel within at least one pixel grid of the array of pixel grids; comparing the count of the pixels in the at least one pixel grid to a reference; and determining a quantified classification as a relation of the count of the pixels to the reference." However, the Examiner relies on Yamamoto to provide these teachings. Yamamoto does include executing a count of pixels within a pixel grid, but does not provide any teaching or suggestion that the count is used for the purposes of calculating or quantifying the quality of an image. Instead, a scanned image is compared against a master image and the number of pixels in each block are counted to determine whether there is a match between the master and the scanned image. Yamamoto does not contemplate the concept of quantifying a quality of the image that has been obtained. Rather, Yamamoto appears to merely obtain the image and compare it against the reference. Therefore, Applicants submit that the combination of the cited references fails to teach or suggest all of the features recited in claim 85. For at least this reason, Applicants submit that claim 85 and claims 86-87 which depend from claim 85, are allowable over the cited references. Withdrawal of the rejection is requested.

In summary, by this Amendment, claims 1 and 65-67 are amended and claims 63-64 are cancelled. Claims 1, 65-68 and 85-87 are pending and are believed to be allowable. Favorable action is hereby respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 
Christopher L. Holt, Reg. No. 45,844
900 Second Avenue South, Suite 1400
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

CLH:tlr